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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,276	06/19/2006	Hirokazu Tanaka	JCLA13267	3162
7590		12/31/2007	EXAMINER	
J C Patents		PENG, CHARLIE YU		
4 Venture Suite 250		ART UNIT		
Irvine, CA 92618		PAPER NUMBER		
		2883		
		MAIL DATE		
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		12/31/2007		
		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/550,276		TANAKA ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Charlie Y. Peng		2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>06/19/06, 08/31/06</u> . | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,239,333 to Dakss et al. in view of U.S. Patent 6,470,120 to Green et al. Dakss teaches a cylinder 701 with a single hole 700, two sleeves 704, 706 inserted in opposite ends of the hole 700, each of the sleeves having a offset hole, wherein optical components are inserted in the offset holes for fiber-to-fiber or fiber-to-terminal coupling via rotational movement.

Dakss does not teach specific examples of coupling a partially spherical lens and an optical fiber with an angled end face.

Green teaches a similar optical apparatus for aligning optical components including lenses, filters, lasers, fiber optics, etc. and first and second dual eccentric sleeve pairs 112-114 and 120-122 respectively, wherein alignment of the optical components are accomplished by rotating the eccentric sleeves to translate the associated component, e.g. lens, fiber, or optical source/sink, through various locations within the x-y plane. See Fig. 1 and description for details. By way of example, Green teaches aligning a double convex lens 102 and a fiber 100 with an angled end face 500 in Fig. 5. Since the lens 102 focuses an optical beam into the fiber 100, it must be at

least clear or transparent to one wavelength. It would have been obvious to one having ordinary skill in the art at the time the invention was made to couple optical components such as lenses as suggested by Green beyond fiber-to-terminal coupling taught Dakss' invention as situation requires for the advantage of reduced time and cost.

With reference to the particular lens having a "columnar portion" as claimed, cylindrical or rod lenses are extremely common in the art, and since applicant has not pointed to any specific advantage or criticality of selecting a lens of such particular shape, it is the examiner's opinion that selecting any known lens is but an obvious engineering choice given that the lens are to be inserted in a sleeve; and a cylindrical lens would have a larger contact surface with the interior surface of the sleeve, resulting in a more secure fit. This rejection may be overcome by a showing of unexpected results.

With reference to claim 2, Dakss and Green teach the optical apparatus but not the size of a beam spot of the lens or its tilt angle with respect to the outer sleeve/cylinder. However, it would be immediately obvious to one skilled in the art that minimizing both these parameters would result in more precision in alignment of the fiber and the lens. It therefore would have been obvious to one of ordinary skill in the art at the time the invention was made to experiment for an optimum range for these parameters, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. This rejection may be overcome by a showing of unexpected results.

With reference to claim 3, Dakss and Green teach the optical apparatus but fail to specifically disclose optical signal response of -30 db or more. The signal response would depend on the distance between lenses, optical material and signal input. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a signal response in this range, since it has been held that discovering an optimum or workable range involves only routine skill in the art. In re Aller, 105 USPQ 233. In addition, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations: Ex parte Mashm, 2 USPQ2d 1647 (1987). This rejection may be overcome by a showing of unexpected results.

With reference to claims 4 and 6, Dakss and Green teach the optical apparatus but fail to disclose wherein the eccentric sleeve or capillary tube is made of glass or crystallized glass. They disclose the claimed invention with the exception of a glass sleeve. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include this feature, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. This rejection may be overcome by a showing of unexpected results.

With reference to claim 5, split sleeves are commonly used and known in the art, the sleeves can be disassembled into two parts and offers the advantage of easy

insertion and removal of components housed therein. Using split sleeves are therefore not considered an non-obvious improvement over the prior art.

With reference to claim 7, the coefficient of thermal expansion is dependent upon materials used for each element. It would have been obvious to one of ordinary skill in the art at the time the invention was made to prescribe a particular expansion coefficient, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. This rejection may be overcome by a showing of unexpected results.

With reference to claim 8 and a method used to produce the tube, even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. That is, the process has no bearing on the patentability of the product claim and is not given patentable weight. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charlie Y. Peng whose telephone number is (571) 272-2177. The examiner can normally be reached on 9 am - 6 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*/ Charlie Peng /*  
Charlie Peng  
Patent Examiner  
Art Unit 2883